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(19) (CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) Booth for Recording Video Images

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(57) 14 Claims

Notice: This application is as filed and may therefore contain an incomplete specification.



Industrie Canada Industry Canada

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ABSTRACT OF THE DISCLOSURE

A booth for making a video recording is portable and self-contained. It has a housing defining a compartment, in which at least one user can make a
5 recording. A video camera is directed at the user and a video tape recorder or the like records the image. To enable the recording being made to be viewed by others, a video monitor is mounted externally of the booth. Preferably, an advertising video tape recording or the
10 like, for example showing a message explaining the function of the booth, is usually connected to the video monitor. It is suppressed and replaced by the image from the video camera when a recording is taking place.

Title: Booth for Recording Video Images

FIELD OF THE INVENTION

This invention relates to audio and video recording apparatus, and more particularly is concerned with a booth, for recording video images or sequences, which is capable of operating remotely and automatically, and is compact and portable, so as to be transportable on conventional transport trucks and the like.

BACKGROUND OF THE INVENTION

At least in Canada, the concept of providing a booth for a video recording is known. The assignee of the present invention has for sometime operated a television station as City-TV, in the Metropolitan Toronto area. As part of this operation, there is provided a booth at City-TV's main premises, at which any interested passerby may record a message. This provides a video camera, a video tape recorder, a control unit, and related lights and the like.

The unit includes a coin box and requires the deposit of selected coins to activate it. This is intended to prevent casual misuse and abuse of the device, with any funds collected being donated to charity. The intention is to enable viewers of the station or anyone else, to record messages on topics of interest. The station operators can then review and select messages suitable for broadcasting.

While this installation provides this function, it suffers from a number of significant disadvantages. Firstly, it is a substantial, permanent installation, which is costly to create. It is immobile, and necessarily requires the interested person to make his or her way to the TV station, in order to record a message. Practically, this means that it is often used by people who are resident close to the TV station, or who otherwise can readily access the booth.

It is desirable to provide a recording booth for

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recording video sequences or images, which is capable of remote and automatic operation. The booth should be light and capable of easy transportation, to enable it to be transported around and left at different locations, i.e. at locations of major pedestrian traffic, to encourage its use. The booth should be compact so that it will readily be accepted for use in a variety of different locations.

SUMMARY OF THE PRESENT INVENTION

In accordance with the present invention, there is provided a booth, for making a recording, the booth being portable and comprising: a housing defining a compartment for at least one user; a video camera directed to record a user in the compartment; and image recording means connected to the video camera for recording an image from the video camera; and a video monitor connected to the image recording means and mounted externally on the housing for displaying the image received by the video camera.

Preferably, the booth includes advertising recording means for storing an advertising recording, for playback over the video monitor for attracting users to the booth. The control unit would then play such a recording when the booth is inactive, but when the booth is in use switches to the recording being made within the booth. This will then enable the user's friends and others to stand outside and watch the recording being made inside.

DESCRIPTION OF DRAWING FIGURES

For a better understanding of the present invention, and to show more clearly how it may be carried into effect, reference will now be made, by way of example, to the accompanying drawings, which show a preferred embodiment of the present invention and in which:

Figure 1 is a perspective view of a portable booth in accordance with the present invention;

Figure 2 is a schematic view of an interior

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panel of the booth in Figure 1;

Figure 3 is a schematic view, similar to Figure 2, showing components of the booth in Figures 1 and 2;

Figure 4 is a schematic diagram of the control
5 apparatus of the present invention; and

Figure 5 is a schematic diagram of a lighting control system of the booth of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENT

Referring first to Figure 1, this shows a booth
10 10, which has generally rectangular sides, front, back and top. As shown, it can have rounded corners, but the exact external shape is not critical.

The booth 10 is a self-contained, portable unit, which is constructed so as to be readily liftable and
15 transportable. It would include a single connection lead, for connection to a standard 110V AC outlet.

On either side, the booth 10 has sliding doors 12, providing access. The doors 12 can be provided with windows 14. On the exterior, there is a video monitor 16
20 with corresponding speaker system indicated schematically at 18.

In the interior, the front approximately 1/4 of a booth is occupied by the electronic equipment. The dotted line at 20 in Figure 1 indicates a division between
25 the front quarter and the remaining 3/4 which forms a compartment for the user.

Figure 2 shows the dividing wall 22, which here would be irregularly shaped, separating the space with the electronic equipment from the user's compartment. The
30 wall 22 has top and bottom, raised panels 23 and 24. Facing the wall 22 is a seat 15, shown in outline, for a user

In the bottom panel 24, there is an opening of a coin box, as part of a coin acceptance mechanism,
35 indicated at 26.

Above this, in the top panel 23, there is a video camera 30 and lights for the camera, shown at 32.

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Signs 34 and 36 can be illuminated to indicated, respectively, "Standby" and "You're On". Microphones 38 are provided for the audio soundtrack. Additionally, there is a numerical display 40, for giving a time
5 indication.

Figure 3 shows the equipment behind the dividing wall 22. Thus, this shows the video monitor 16, an advertising video tape recorder 42, an image video tape recorder 44 and a control unit 46. An amplifier and
10 speaker assembly 48 and a suitable deflector 50 and a related audio processor 47 are provided.

As Figure 4 shows, the control unit 46 is connected to, and controls, the video monitor 16, the image VTR 44, the camera lights 32 and the coin box and
15 acceptance mechanism 26. It is also connected to a light controller 52, which in turn is connected to lights for the status signs 34 and 36, and also to a light for a TAPE FULL sign 37, which could be provided either internally or externally. It provides an indication to the user that
20 the tape of the VTR is full so that no further recordings can be made.

As shown in Figure 4, the audio processor 47 is connected between the microphones 38 and the recorder VTR 44, and the camera 30 is also connected to the recorder
25 VTR 44. Both the image recorder VTR 44 and the advertising VTR 42 are connected to the video monitor 16. The monitor 16 is also connected to the amp and speaker assembly 48.

As Figure 5 shows in greater detail, the control
30 unit 46 is connected to the light controller 52. This in turn controls relays indicated at 56 for the lights for the status signs 34, 36 and the tape full sign 37. It also controls the camera lights 32 and fluorescent lights 54. The fluorescent lights 54 would be the regular
35 illumination within the recording booth. Via a driver 53, it controls the numerical display 40.

The VTR 44 and the coin box and coin acceptance

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mechanism 26 have respective control units 45 and 27.

In use, the user, or possibly two or more users, access the cab or space by sliding open one of the doors 12, entering the booth, and then closing the door behind. When seated on the seat 15, the user would see the configuration of Figure 2. A list of instructions would be provided clearly on the dividing wall 22.

To start the device, a dollar or other predetermined coin is inserted into the coin acceptance mechanism 26.

The coin box acceptance mechanism 26 checks the coin to ensure that it is a proper dollar coin. If so, the coin box 26 checks with the control unit 46 whether all systems are operational and ready for recording. For example, the tape on the VTR 44 may be full, in which case control unit 46 would give a negative answer and the coin would be released.

The control unit in turn, when it receives the status inquiry from the coin box 26, checks the numerical display counter 40 to ensure it is 0 and ready to operate, and also checks that the VTR 44 is ready to operate. Assuming all such units are ready to operate, the provides a positive signal to the coin box 26.

If the control unit 46 indicates that all systems are operational, i.e. a positive signal, the coin is accepted and the control unit 46 is given a signal to proceed.

When the control unit 46 receives the proceed signal from the coin box 26, it resets the numerical display counted to 10 seconds, and turns on the standby light 34. The display 40 flashes and counts down the 10 seconds.

Then, the standby light 34 is turned off and the "YOU'RE ON" light is turned on. The counter on display 40 then counts down from 2 minutes. Recording starts, and the VTR 44 is turned on to record.

Simultaneously, and unlike any other known unit,

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the advertising or informational tape in VTR 42 is disconnected from the monitor 16, and the image being recorded by camera 30 is connected to the video monitor 16. The audio, recorded by microphones 38, is muted
5 during this time to avoid feedback. However, the audio sensed by microphones 38 is recorded simultaneously with the image from camera 30 on the VTR 44.

The recorder video tape recorder 44 is a 3/4" tape recorder.

10 The recorder video tape recorder 42 is provided with a continuous loop of tape providing advertising or information. In particular, it would include some sequence indicating the purpose of the booth, how to
15 operate it, and what coin or coins would be required to activate it. It would be intended to entice passers by to use the booth. This would be run continuously, when the booth is not in use, and provide both a continuous audio and video image to the monitor 16 and the amplifier and
20 speaker 48. As indicated above, when recording is taking place, the audio is muted and the video image from the camera 30 is connected to the monitor 16. This would enable friends of the user of the booth to stand outside and watch the message being recorded within the booth.

Known apparatus of this sort typically provide
25 little or no privacy, and further they provide no opportunity for friends or acquaintances of a user to watch a message being recorded. Frequently, a group of people will approach such device together with the intention that one of them will record a message. The
30 other members of the group will often be strongly interested in watching the message as it is being recorded, which is now possible with this booth.

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THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A booth for making a video recording, the booth being portable and comprising: a housing defining a compartment for at least one user; a video camera directed to record a user in the compartment; an image recording means connected to the video camera for recording an image from the video camera; and a video monitor connected to the image recording means and mounted externally on the housing for displaying the image received by the video camera.
2. A booth as claimed in claim 1, which includes an advertising recording means for storing an advertising recording and connected to the video monitor for display thereof, and a control unit connected to the image recording means and to the video monitor, for selectively connecting one of the image recording means and the advertising recording means to the video monitor.
3. A booth as claimed in claim 2, which includes at least one microphone in the compartment and an audio processor connected between each microphone and the image recording means for recording an audio signal in conjunction with the video image.
4. A booth as claimed in claim 3, which includes an amplifier and speaker connected to the video monitor for an audio signal accompanying a video image displayed on the video monitor, wherein the control unit suppresses the audio signal when the video monitor is connected to the image recording means to prevent audio feedback.
5. A booth as claimed in claim 1, 2, 3 or 4, which includes means for accepting and checking coins, connected to the control unit for activating the booth.
6. A booth as claimed in claim 4, which includes coin acceptance means for accepting and checking coins, located within the compartment and connected to the control unit, for accepting coins to activate the booth, wherein the control unit is only activated if an

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acceptable coin is received by the coin acceptance means, and wherein the control unit sends a signal to the coin acceptance means to reject the coin, if the booth is unable to make a further video recording.

5 7. A booth as claimed in claim 6, which includes lights within the compartment and a light controller connected to the lights for control thereof and connected to the control unit.

8. A booth as claimed in claim 7, wherein the
10 lights comprise conventional lights for illuminating the compartment when the video camera is not in use, and camera lights which are activated when the camera is in use.

9. A booth as claimed in claim 8, which includes a
15 sign which can be illuminated to provide a standby indication and a sign which can be illuminated to provide an indication that the video camera is operational, which signs are connected to and controlled by the light controller.

20 10. A booth as claimed in claim 9, which includes a numerical counter connected to and controlled by the light controller, for providing an indication of the times until recording commences, and time remaining for a recording.

11. A booth as claimed in claim 10, which includes
25 a sign which may be illuminated to indicate that the image recording means is full.

12. A booth as claimed in any preceeding claim,
wherein the compartment is provided at one end of the booth, and has sliding access doors on either side
30 thereof.

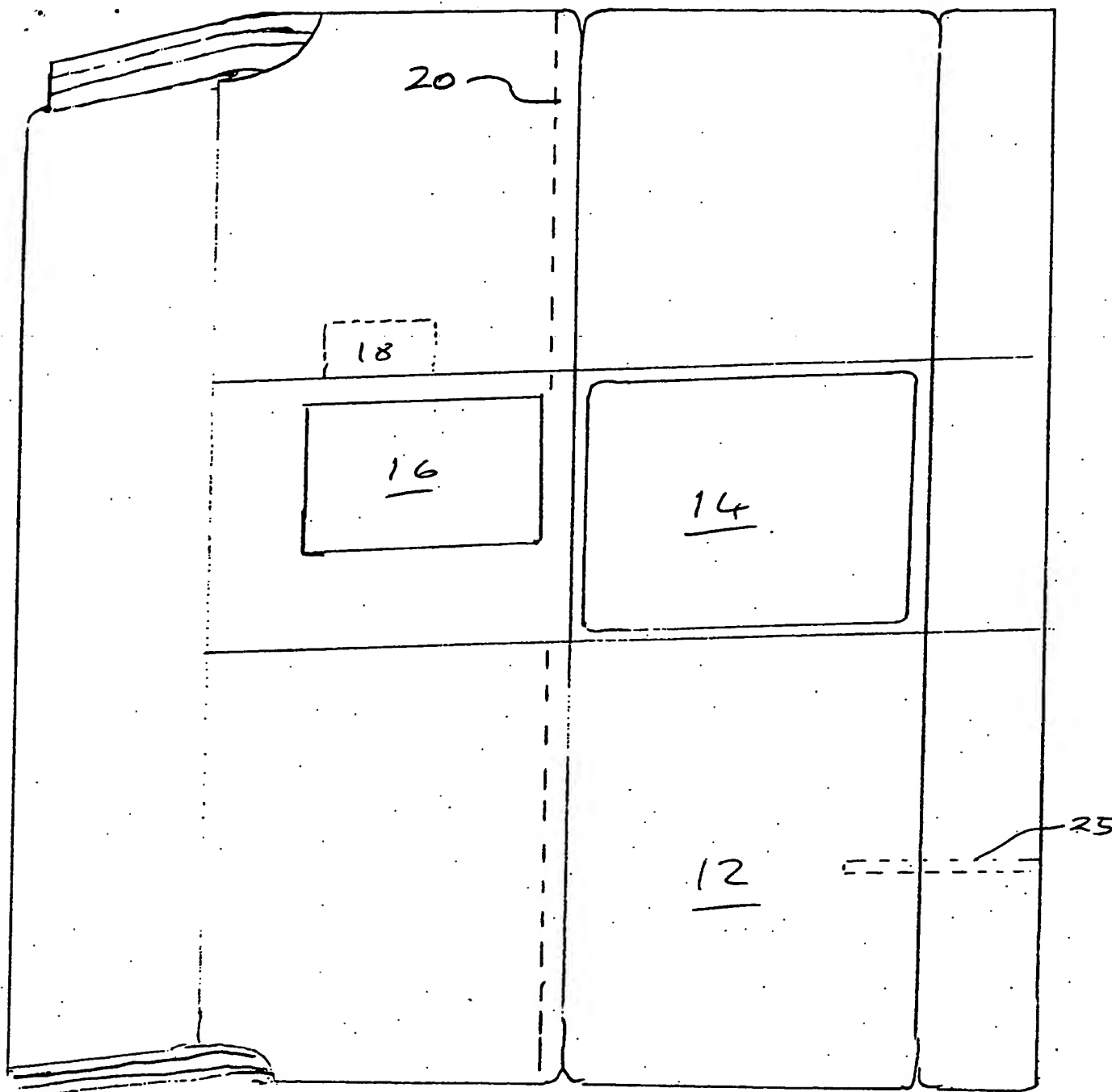
13. A booth as claimed in any one of claims 2 to 11, wherein the image recording means comprises a video tape recorder and the advertising recording means comprises a video tape recorder.

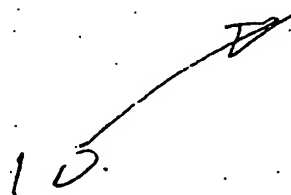
35 14. A booth as claimed in any one of claims 2 to 11 wherein the image recording means comprises a video tape recorder, and the advertising recording means comprises a

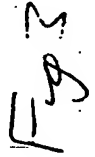
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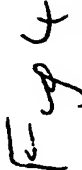
video tape recorder provided with a constant tape loop,
and wherein the video monitor is usually connected to the
advertising recording means, and the control unit can
override this connection to connect the video monitor to
5 the image recording means when the video camera is
operational.



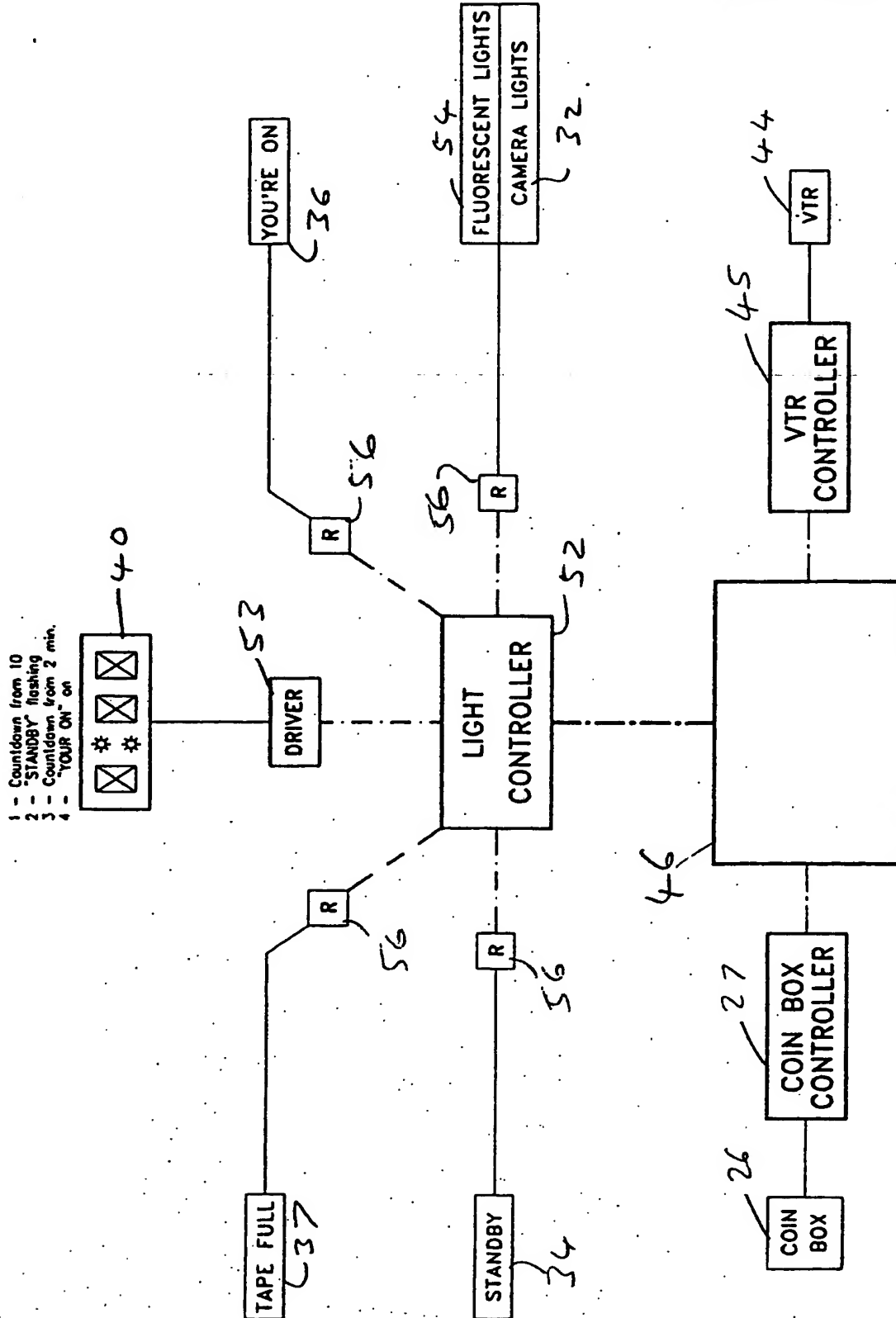
10.  FIG I



CAD DRAWING: TOPSEC1.DWG



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- 1 - Power On
- 2 - Tape Machine Tape Status
- 3 - Check Timer "0"
- 4 - Accept Coin

R - RELAY (LIGHTS A.C. OPERATED)